

**Translation**

**PATENT COOPERATION TREATY**

PCT/EP2002/014468



**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference A400777WO	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. PCT/EP2002/014468	International filing date (day/month/year) 18 December 2002 (18.12.2002)	Priority date (day/month/year) 11 January 2002 (11.01.2002)
International Patent Classification (IPC) or national classification and IPC B22D 11/06		
Applicant VOEST-ALPINE INDUSTRIEANLAGENBAU GMBH & CO		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand 14 July 2003 (14.07.2003)	Date of completion of this report 05 April 2004 (05.04.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2002/014468

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ The international application as originally filed/furnished

☒ the description:

pages \_\_\_\_\_ 1-10 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims:

pages \_\_\_\_\_ 1-37 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the drawings:

pages \_\_\_\_\_ 1/1 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/EP 02/14468

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims		YES
	Claims	1, 6, 21, 24, 37	NO
Inventive step (IS)	Claims	20	YES
	Claims	2-16, 22-36	NO
Industrial applicability (IA)	Claims	1-37	YES
	Claims		NO

### 2. Citations and explanations

1. The subject matter of the claims is industrially applicable and the requirement of PCT Article 33(4) is therefore satisfied.
2. US-A-3 135 319 (document D1) discloses a casting roll with the structural features of independent claim 1. Said casting roll is suitable for "smoothing molten glass" and, since this method involves temperatures and heat transfer which are similar to those that occur with molten steel, would also be suitable for the purpose stated in claim 1, in particular for a casting process in a single-roll casting installation (see in particular D1, column 2, lines 28-38 and the figures). Claim 1 consequently fails to meet the requirement of novelty (PCT Article 33(2)).
3. The method according to claim 21 does not differ from a conventional shrink-fitting method such as would appear to have been used for the roll according to D1. Although claim 21 defines a method, it is not stated how the protuberances and indentations are produced. Therefore this claim, likewise, fails to meet the requirement of novelty (PCT Article 33(2)).

- 3a. The remaining features of dependent claims 6 and 24 are also known from D1 and, in consequence, said features in combination with the respective independent claims lack novelty.
4. The method according to claim 37 is not novel over the method known from EP-A-0 246 188 (D2, see in particular page 3, line 36 to page 4, line 6 and figure 2). This claim fails to meet the requirement of PCT Article 33(2).
5. As indicated in the search report, the majority of features of the dependent claims are already known from the prior art, namely from D1 and D2 and, in addition, from DE-A-40 27 225; it would therefore appear that said features in combination with an independent claim do not involve an inventive step.
6. The arguments put forward by the applicant are not convincing since the significance of the following expressions appears not to have been taken into consideration:
- a) extending radially by at least 2µm (claims 1 and 21);
  - b) the retaining strips...the outer casing...  
project...by at least 2µm, [and] preferably...  
15mm (claim 37);
  - c) between...at least one sealed joint  
(claim 37).

The expression "at least 2µm" includes all greater values and, in the absence of additional features,

/...

the opposing outer casings could not form a "sealed joint" even if the retaining strips were to project beyond one of the outer casings by 15mm.

In addition, it is not clear whether the emphasis in expression c) is intended to be on **one** joint or on a **sealed** joint. The alternative concerning **one** joint certainly cannot be seen from the figures. The nature of the desired seal, for example whether it is gas-tight or liquid-tight, also remains unclear. At least this expression in claim 37 therefore fails to meet the requirement of PCT Article 6.

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